



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,132	01/12/2001	Jeffrey B. Hoke	4590/4591A(CIP)	8892

7590 03/02/2004

Chief Patent Counsel
Engelhard Corporation
101 Wood Avenue
P.O. Box 770
Iselin, NJ 08830

EXAMINER

LANGEL, WAYNE A

ART UNIT	PAPER NUMBER
----------	--------------

1754

DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
--------------------	-------------	-----------------------	---------------------

EXAMINER

ART UNIT	PAPER NUMBER
----------	--------------

DATE MAILED:

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 11-10-03

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 16-20 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 16-20 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of Reference Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16 and 18-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Offenlegungsschrift 4007965 in view of Hampshire, further in view of Smith. Offenlegungsschrift 4007965 discloses a structure comprising a mixture of copper oxides and manganese oxides on a substrate, wherein the coating also comprises heat-resistant binders. (See the first full paragraph on page 1 and the fourth full paragraph on page 2 of the English translation.) The differences between the structure disclosed by Offenlegungsschrift 4007965, and that recited in claims 16 and 18-20, are that Offenlegungsschrift 4007965 does not disclose that the heat-resistant binder should be an organic binder, or that the coating mixture should include a clay. Hampshire discloses a method for simultaneously spraying fibrous and resinous material to provide a deposit of resin-bonded fibrous material. (See column 1, lines 15-49 and column 2, lines 10-26.)

The resin bonding material disclosed by Hampshire would be organic. Smith discloses a method for applying a layer of fiber to a surface while simultaneously coating the fiber with a tacky binder, and teaches that a temperature resistant clay is added to the binder to produce the tacky characteristic. (See column 2, lines 36-61.) It would be prima facie obvious from Hampshire to employ an organic binder as the heat-resistant binder in the composition of Offenlegungsschrift 4007965, since the disclosure found in the fourth full paragraph on page 2 of the English translation of Offenlegungsschrift 4007965 is directed broadly to the use of any heat-resistant binder, and it would be expected that the organic resin disclosed by Hampshire would be suitable as such a binder. It would be further obvious from Smith to include a clay in the composition of Offenlegungsschrift 4007965 to produce the necessary tacky characteristic of the composition, in view of the disclosure found at column 2, lines 55-57 of Smith. Applicant's argument, that applicant has discovered that the use of clay minerals in manganese dioxide catalyst slurries containing an organic binder unexpectedly improves the adhesion of the resulting catalyst coatings to metal substrates, and that the clay counters the adhesion loss believed to be caused by degradation of the organic binder by a manganese dioxide, referring to page 83, lines 20-27 of the specification, is not

convincing, since page 83, lines 20-24 of the specification relate to Example IV, which does not allude to any improvement in the adhesion of the catalyst coating. Applicant's argument, that Smith teaches a method for applying a layer of fiber to a surface while simultaneously coating the fiber with an inorganic binder, and that the organic binder required in the present claims is neither taught nor suggested in Smith, is not convincing, since it would be obvious from Hampshire to employ an organic binder in the composition of Offenlegungsschrift 4007965, for the reasons given hereinbefore.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Offenlegungsschrift 4007965 in view of Hampshire, further in view of Smith as applied to claim 16 above, and further in view of pages 71 and 72 in the book titled Adhesives Handbook by Shields published by Chemical Rubber Co. U.S.A. (1970) and by pages 25 and 26 in the book titled Adhesive Bonding, Techniques and Applications by Cagle published by McGraw-Hill Book Co. U.S.A. (1968). The Adhesives Handbook and the book titled Adhesive Bonding, Techniques and Applications are relied upon as discussed in the last Office action. It would be further obvious from such books to include a silicone polymer in the coating mixture of Offenlegungsschrift 4007965.

Claims 16-20 are rejected under 35 U.S.C. § 112, second

paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is indefinite as to what would constitute "a manganese dioxide" (as opposed to --manganese dioxide--). For example, it is indefinite as to whether "a manganese dioxide" would embrace non-stoichiometric manganese dioxides, as disclosed on page 21 of the specification, and, if so, what the ranges of such non-stoichiometry would be. Claims 17-21 are indefinite in depending from claim 1, which has been cancelled.

Claims 16-20 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no "description support" for the claims as now recited.

Applicant's argument, that support for the new claims may be found on page 23, lines 10-19 and page 83, lines 20-27 of the specification, is not convincing, since those portions of the specification do not allude to, let alone describe, a structure comprising a mixture coated on a metal substrate, wherein the mixture comprises a manganese dioxide, an organic binder and a clay.

Serial No. 09/758,132

-6-

Art Unit 1754

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne A. Langel whose telephone number is (571) 272-1353. The examiner can normally be reached on Monday through Friday from 8 A.M. to 3:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on (571) 272-1358. The fax phone number for this Group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WAL:cdc

February 20, 2004

Wayne A. Langel
WAYNE A. LANGEL
PRIMARY EXAMINER